AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions of the claims and listing of the claims in the application:

1. **(Original)** A method of treating or preventing a body disorder related to weight gain or loss in a subject afflicted with said disorder, comprising administering to the subject an amount of a creatine compound, or a pharmaceutically acceptable salt thereor, effective to treat, reduce, or prevent said disorder.

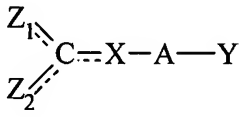
2. **(Original)** The method of claim 1 wherein said disorder is obesity.

3. **(Canceled)**

4. **(Currently Amended)** The method of claim 1 wherein said disorder is obesity assoicated discorder such as cardiovascular disease, hypertension, hyperlipidaemia, osteoporosis ~~osteoperosis~~, and osteoarthritis.

5. **(Original)** The method of claim 1 wherein the subject is human.

6. **(Currently Amended)** A method for treating a metabolic disorder consisting of obesity and ~~it's~~ its associated diseases, in a subject experiencing said disorder, comprising administering to the subject a therapeutic amount of a creatine analogue having the general formula:



and pharmaceutically acceptable salts thereof, wherein:

a) Y is selected from the group consisting of: $-CO_2H$-NHOH, $-NO_2$, $-SO_3H$, $-C(=O)NHSO_2J$ and $-P(=O)(OH)(OJ)$, wherein J is selected from a group consisting of: hydrogen, C_1-C_6 straight chain alkyl, C_3-C_6 branched alkyl, C_2-C_6 alkenyl, C_3-C_6 branched alkenyl, and aryl;

b) A is selected from the group consisting of: C, CH, C_1-C_5 alkyl, C_2-C_5 alkenyl, C_2-C_5 alkynyl, and C_1-C_5 alkoyl chain, each having 0-2 substituents which are selected independently from the group consisting of:

1) K, where K is selected from the group consisting of: C_1-C_6 straight alkyl, C_2-C_6 straight alkenyl, C_1-C_6 straight alkoyl, C_3-C_6 branched alkyl, C_3-C_6 branched alkenyl, and C_4-C_6 branched alkoyl, K having 0-2 substituents independently selected from the group consisting of bromo, chloro, epoxy and acetoxy;

2) an aryl group selected from the group consisting of: a 1-2 ring carbocycle and a 1-2 ring heterocycle, wherein the aryl group contains 0-2 substituents independently selected from the group consisting of: -CH_2L and -$COCH_2$L where L is independently selected from the group consisting of: bromo, chloro, epoxy and acetoxy; and

3) -NH-M, wherein M is selected from the group consisting of: hydrogen, C_1-C_4 alkyl, C_2-C_4 alkenyl, C_1-C_4 alkoyl, C_3-C_4 branched alkyl, C_3-C_4 branched alkenyl, and C4 branched alkoyl;

c) X is selected from the group consisting of NR_1, CHR_1, CR_1, O and S, wherein R_1 is selected from the group consisting of:

1) hydrogen;

2) K where K is selected from the group consisting of: C_1-C_6 straight alkyl, C_2-C_6 straight alkenyl, C_1-C_6 straight alkoyl, C_3-C_6 branched alkyl, C_3-C_6 branched alkenyl, and C_4-C_6 branched alkoyl, K having 0-2 substituents independently selected from the group consisting of: bromo, chloro, epoxy and acetoxy;

3) an aryl group selected from the group consisting of a 1-2 ring carbocycle and a 1-2 ring heterocycle, wherein the aryl group contains 0-2 substituents independently selected from the group consisting of: -CH_2L and -$COCH_2$L where L is independently selected from the group consisting of: bromo, chloro, epoxy and acetoxy;

4) a C_5-C_9 a-amino-w-methyl-w-adenosylcarboxylic acid attached via the w-methyl carbon;

5) 2 C_5-C_9a-amino-w-aza-w-methyl-w-adenosylcarboxylic acid attached via the w-methyl carbon;

6) a C_5-C_9 a-amino-w-thia-w-methyl-w-adenosylcarboxylic acid attached via the w-methyl carbon;

d) Z_1 and Z_2 are chosen independently from the group consisting of: =O, -NHR_2, -CH_2R_2, -NR_2OH; wherein Z_1 and Z_2 may not both be =O and wherein R_2 is selected from the group consisting of:

1) hydrogen;

2) K, where K is selected from the group consisting of: C_1-C_6 straight alkyl; C_2-C_6 straight alkenyl, C_1-C_6 straight alkoyl, C_3-C_6 branched alkyl, C_3-C_6 branched alkenyl, and C_4-C_6 branched alkoyl, K having 0-2 substituents independently selected from the group consisting of: bromo, chloro, epoxy and acetoxy;

3) an aryl group selected from the group consisting of a 1-2 ring carbocycle and a 1-2 ring heterocycle, wherein the aryl group contains 0-2 substituents independently selected from the group consisting of: -CH_2L and -$COCH_2L$ where L is independently selected from the group consisting of: bromo, chloro, epoxy and acetoxy;

4) 2 C_4-C_8 [[a]] α-amino-carboxylic acid attached via the w-carbon;

5) B, wherein B is selected from the group consisting of: -CO_2H-NHOH, -SO_3H, -NO_2, OP(=O)(OH)(OJ) and -P(=O)(OH)(OJ), wherein J is selected from the group consisting of: hydrogen, C_1-C_6 straight alkyl, C_3-C_6 branched alkyl, C_2-C_6 alkenyl, C_3-C_6 branched alkenyl, and aryl, wherein B is optionally connected to the nitrogen via linker selected from the group consisting of: C_1-C_2 alkyl, C_2 alkenyl, and C_1-C_2 alkoyl;

6) -D-E, wherein D is selected from the group consisting of: C_1-C_3 straight alkyl, C_3 branched alkyl, C_2-C_3 straight alkenyl, C_3 branched alkenyl, C_1-C_3 straight alkoyl, aryl and aroyl; and E is selected from the group consisting of: -$(PO_3)_n$NMP, where n is 0-2 and NMP is ribonucleotide monophosphate connected via the 5'-phosphate, 3'-phosphate or the aromatic ring of the base; -$[P(=O)(OCH_3)(O)]_m$-Q, where m is 0-3 and Q is a ribonucleoside connected via the ribose or the aromatic ring of the base; -$[P(=O)(OH)(CH_2)]_m$-Q, where m is 0-3 and Q is a

ribonucleoside connected via the ribose or the aromatic ring of the base and an aryl group containing 0-3 substituents chosen independently from the group consisting of: Cl, Br, epoxy, acetoxy, -OG, -C(=O)G, and -CO_2G, where G is independently selected from the group consisting of: C_1-C_6 straight alkyl, C_2-C_6 straight alkenyl, C_1-C_6 straight alkoyl, C_3-C_6 branched alkyl, C_3-C_6 branched alkenyl, C_4-C_6 branched alkoyl, wherein E may be attached to any point to D, and if D is alkyl or alkenyl, D may be connected at either or both ends by an amide linkage; and

7) -E, wherein E is selected from the group consisting of -$(PO_3)_n$NMP, where n is 0-2 and NMP is a ribonucleotide monophosphate connected via the 5'-phosphate, 3'-phosphate or the aromatic ring of the base; -$[P(=O)(OCH_3)(O)]_m$-Q where m is 0-3 and Q is a ribonucleoside connected via the ribose or the aromatic ring of the base; -$[P(=O)(OH)(CH_2)]_m$-Q where m is 0-3 and Q is a ribonucleoside connected via the ribose or the aromatic ring of the base; and an aryl group containing 0-3 substituents chose independently from the group consisting of: Cl, Br, epoxy, acetoxy, -OG, -C(=O)G, and -CO_2G, where G is independently selected from the group consisting of: C_1-C_6 straight alkyl, C_2-C_6 straight alkenyl, C_1-C_6 straight alkoyl, C_3-C_6 branched alkyl, C_3-C_6 branched alkenyl, C_4-C_6 branched alkoyl; and if E is aryl, E may be connected by an amide linkage;

e) if R_1 and at least one R_2 group are present, R_1 may be connected by a single or double bond to an R_2 group to form a cycle of 5 to 7 members;

f) if two R_2 groups are present, they may be connected by a single or a double bond to form a cycle of 4 to 7 members; and

g) if R_1 is present and Z_1 or Z_2 is selected from the group consisting of -NHR_2, -CH_2R_2 and -NR_2OH, then R_1 may be connected by a single or double bond to the carbon or nitrogen of either Z_1 or Z_2 to form a cycle of 4 to 7 members.

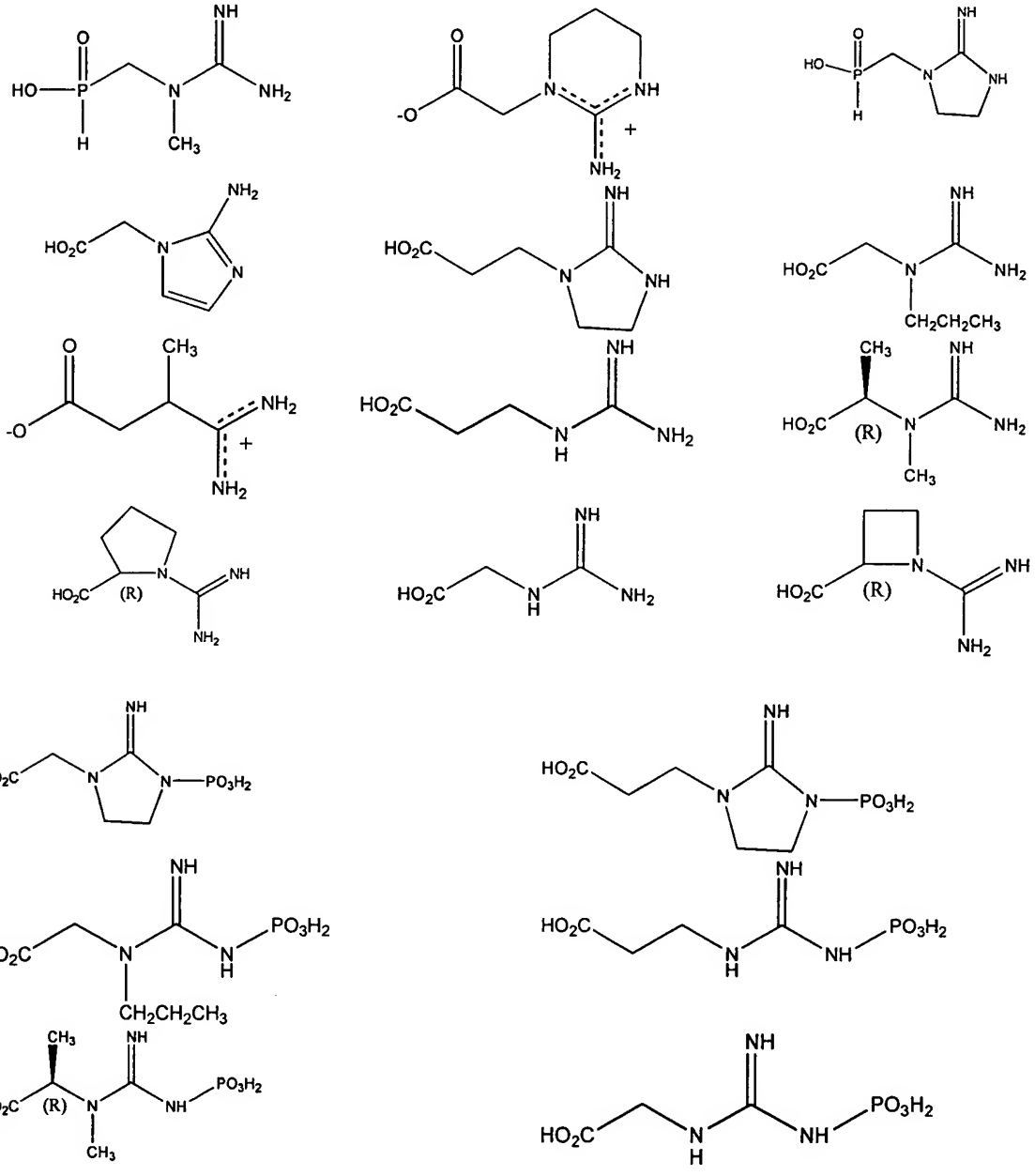
~~Currently preferred compounds include cyclocreatine, creatine phosphate and those included in Tables 1 and 2 hereinabove.~~

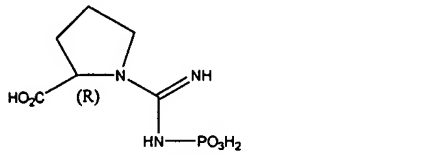
7. **(Original)** A method of claim 6 wherein the creatine compound is used in combination with standard therapies used to treat body weight disorders.

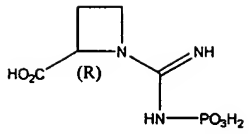
Claims 8-13. **(Canceled)**

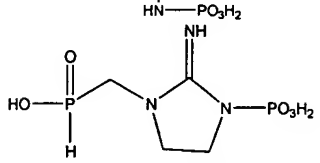
14. **(New)** The method of claim 2 wherein said compound is creatine.

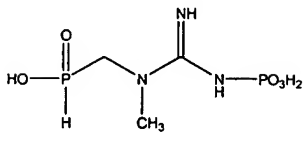
15. **(New)** A method of treating or preventing obesity, comprising: administering to a subject afflicted with or susceptible to obesity, an amount of a creatine compound, or a pharmaceutically acceptable salt thereof effective to treat, reduce or prevent obesity, wherein said creatine compound is selected from the group consisting of:

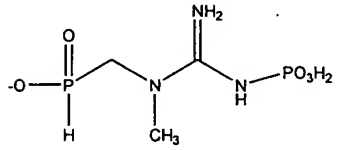


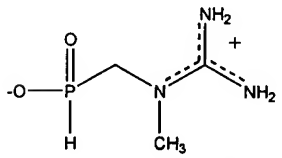


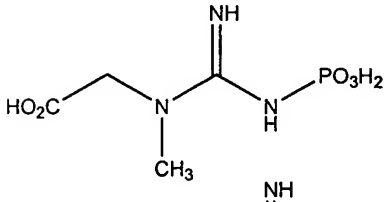


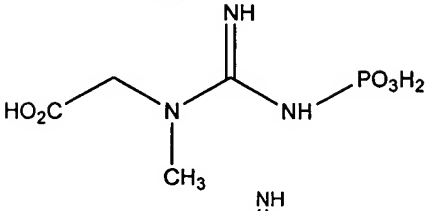


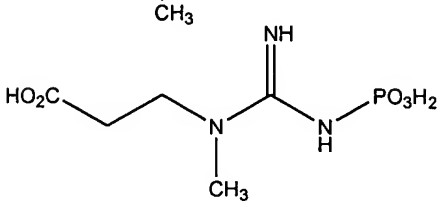


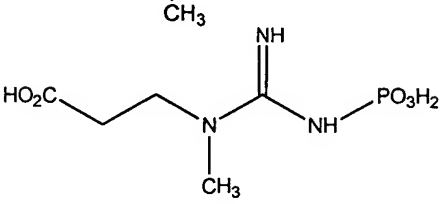








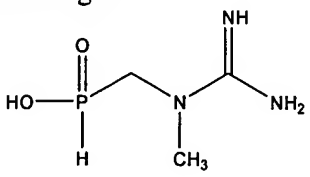


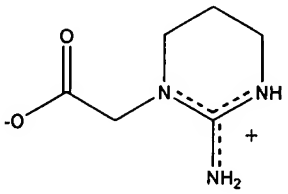


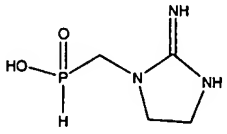
and pharmaceutically acceptable salts thereof.

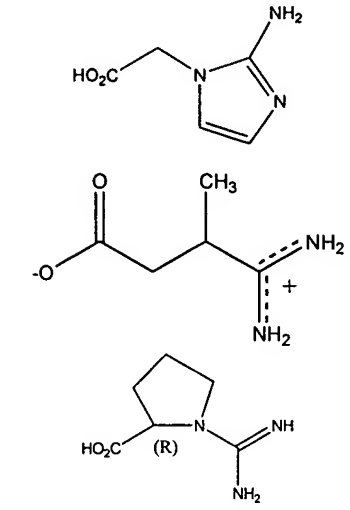
16. **(New)** A method of treating or preventing obesity, comprising: administering to a subject afflicted with or susceptible to obesity, an amount of a cyclocreatine, or a pharmaceutically acceptable salt thereof effective to treat, reduce or prevent obesity.

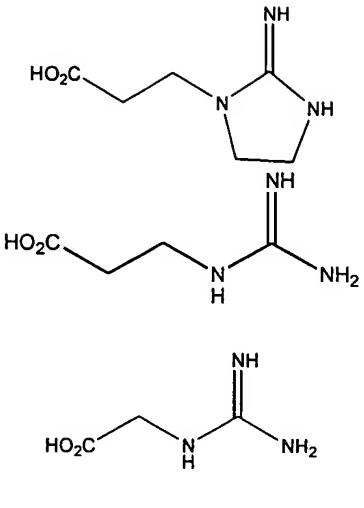
17. **(New)** A method of treating or preventing cardiovascular disease, comprising: administering to a subject afflicted with or susceptible to cardiovascular disease, an amount of a creatine compound, or a pharmaceutically acceptable salt thereof effective to treat, reduce or prevent cardiovascular disease, wherein said creatine compound is selected from the group consisting of:

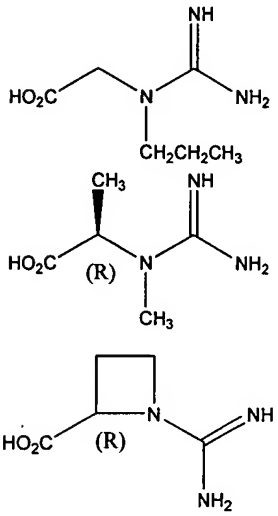


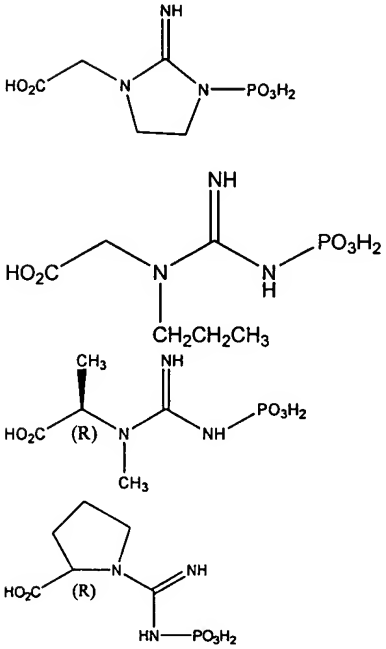


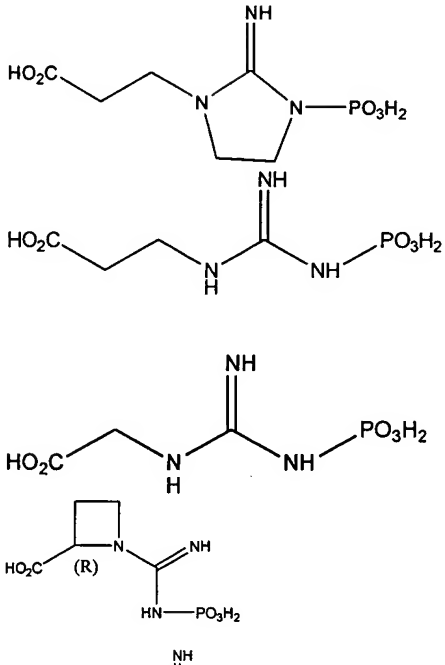


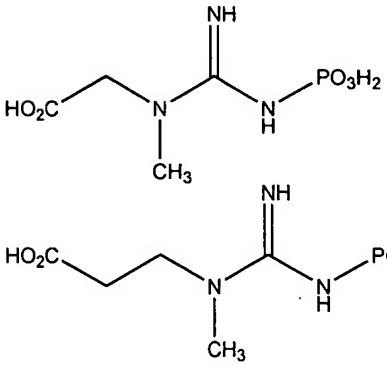
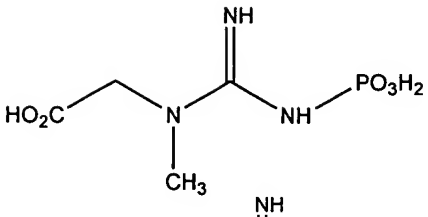


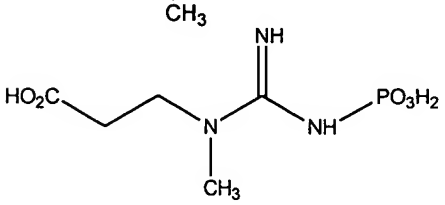






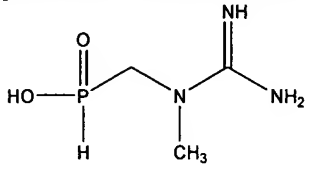
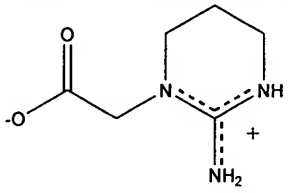
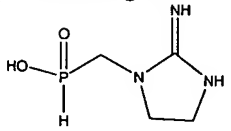
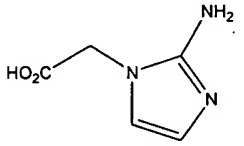
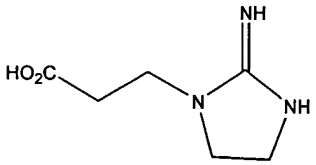
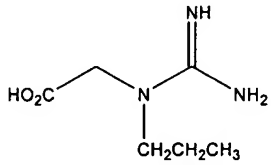
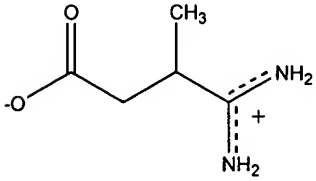
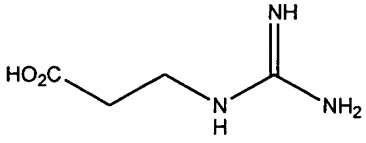
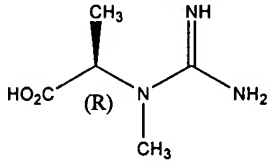
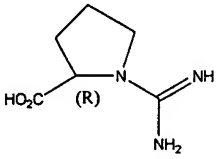
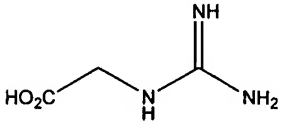
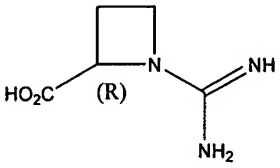
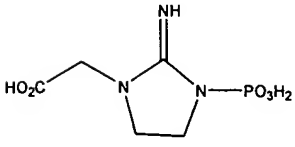
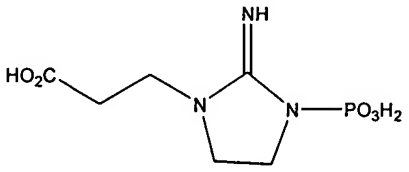


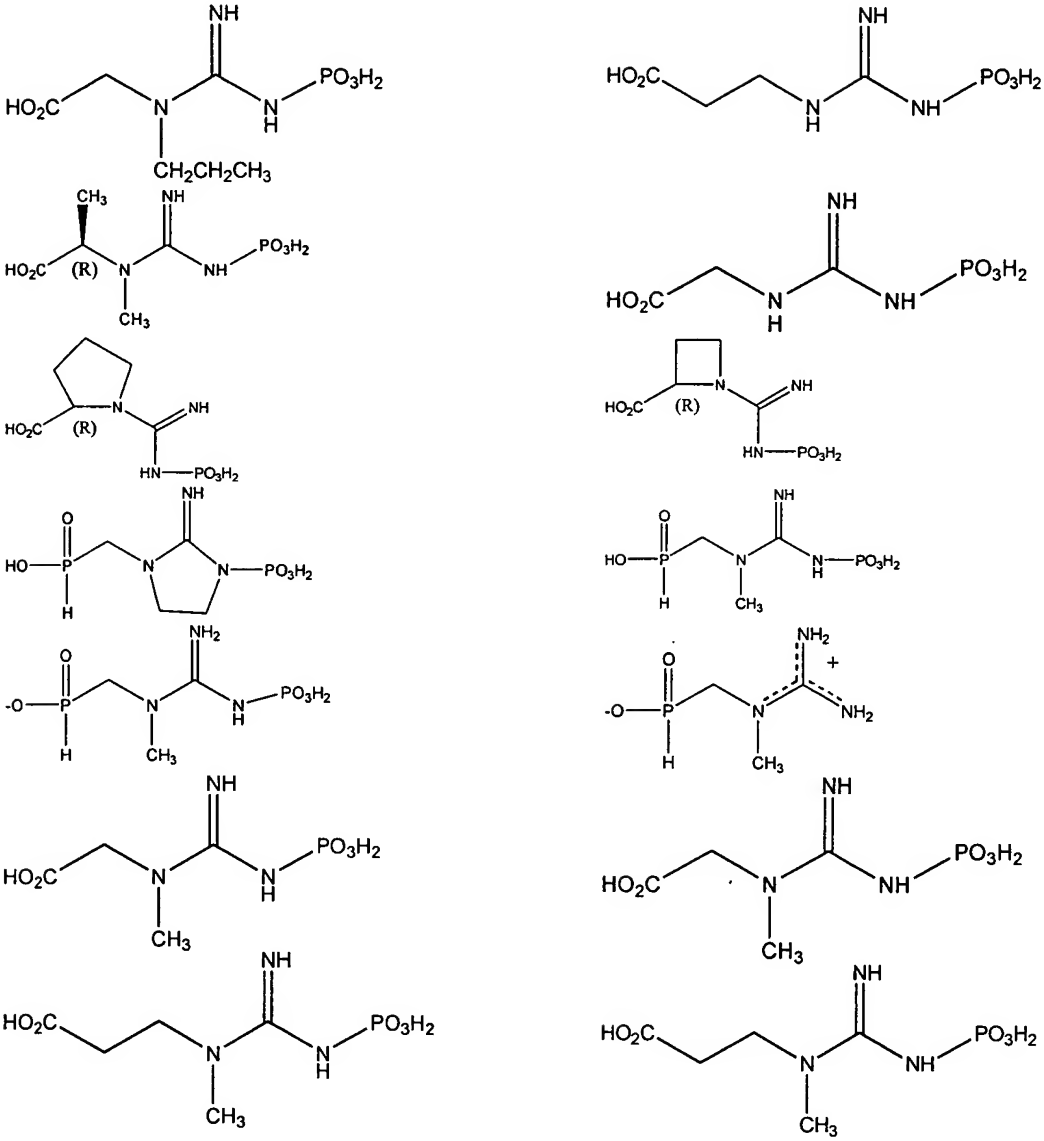





and pharmaceutically acceptable salts thereof.

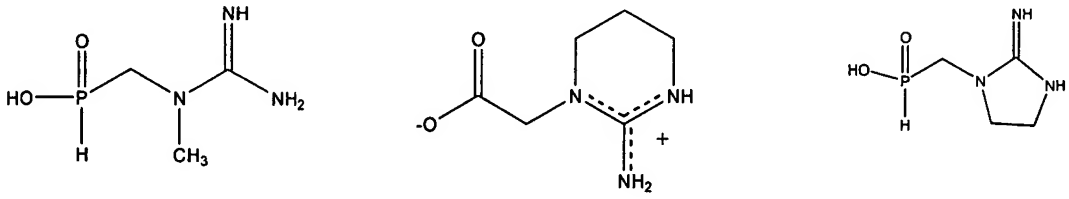
18. **(New)** A method of treating or preventing hypertension, comprising: administering to a subject afflicted with or susceptible to hypertension, an amount of a creatine compound, or a pharmaceutically acceptable salt thereof effective to treat, reduce or prevent hypertension, wherein said creatine compound is selected from the group consisting of:

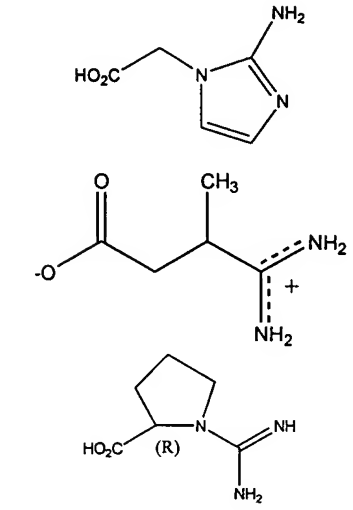















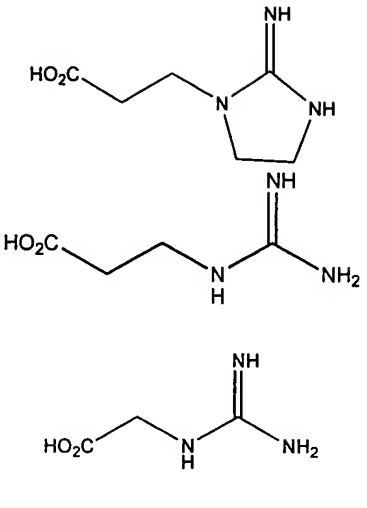


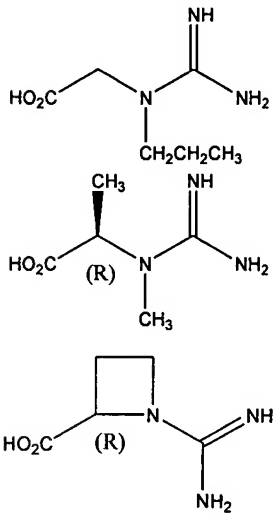
and pharmaceutically acceptable salts thereof.

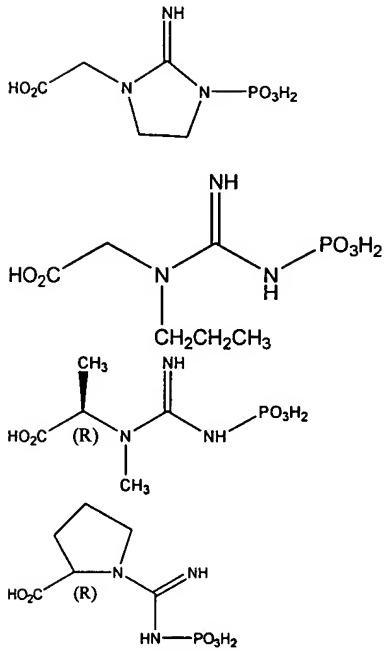
19. **(New)** A method of treating or preventing hyperlipidemia, comprising: administering to a subject afflicted with or susceptible to hyperlipidemia, an amount of a creatine compound, or a pharmaceutically acceptable salt thereof effective to treat, reduce or prevent hyperlipidemia, wherein said creatine compound is selected from the group consisting of:

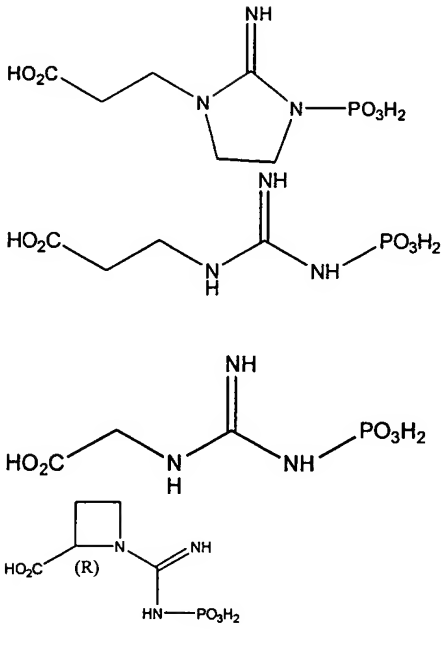


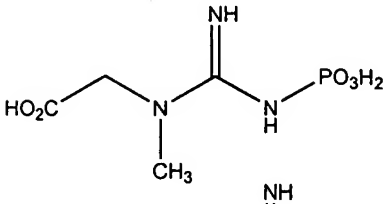
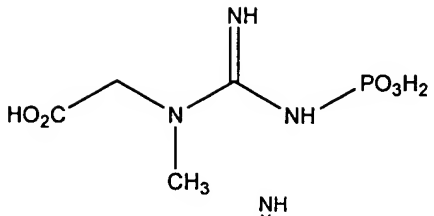
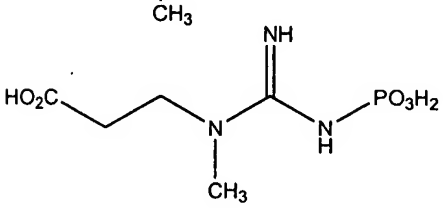
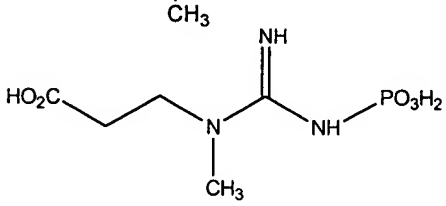






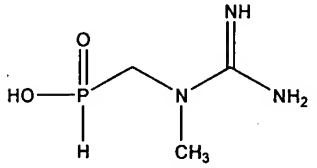
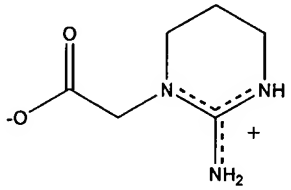
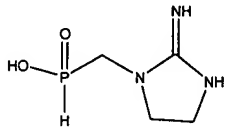
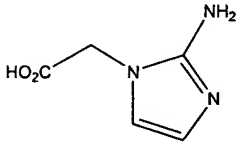
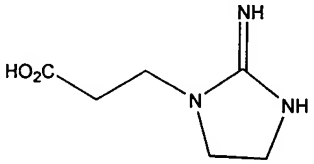
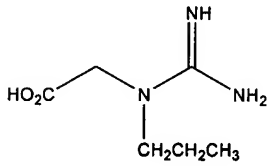
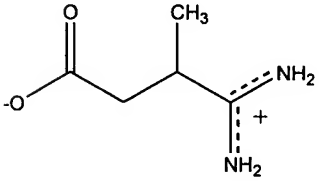
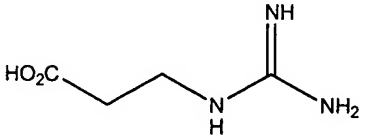
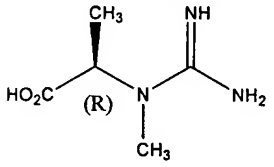
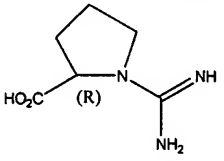
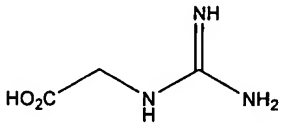
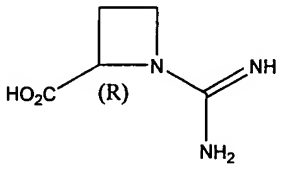
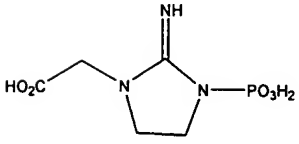
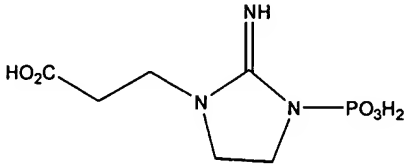


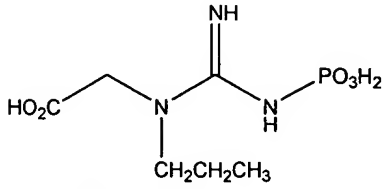


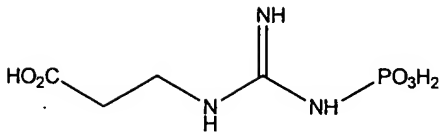





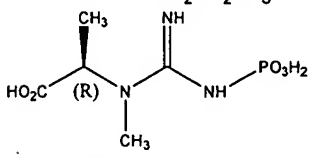
and pharmaceutically acceptable salts thereof.

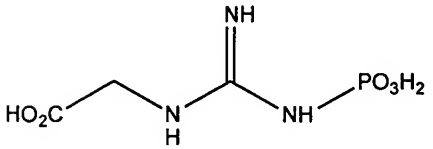
20. **(New)** A method of treating or preventing osteoporosis, comprising: administering to a subject afflicted with or susceptible to hyperlipidemia, an amount of a creatine compound, or a pharmaceutically acceptable salt thereof effective to treat, reduce or prevent hyperlipidemia, wherein said creatine compound is selected from the group consisting of:

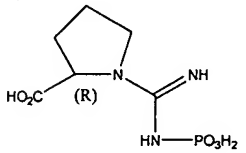















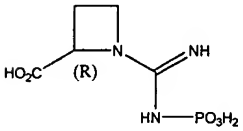


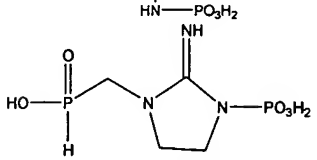


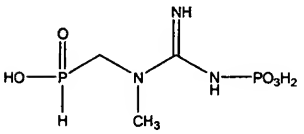


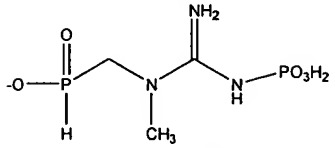


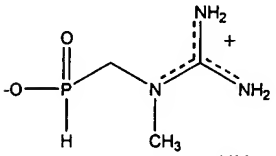


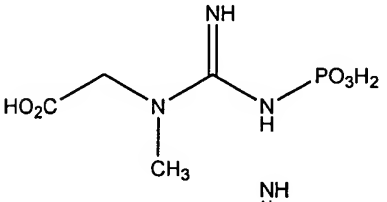


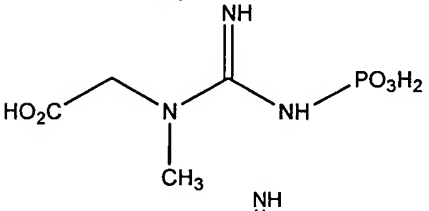


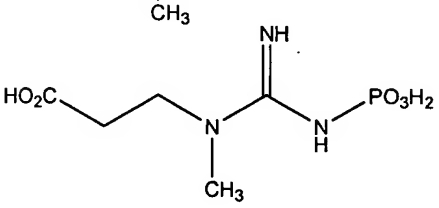


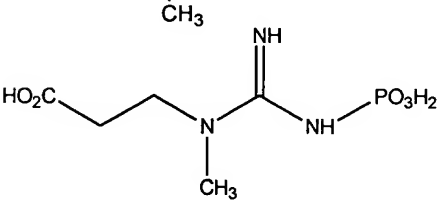












and pharmaceutically acceptable salts thereof.